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| Section 2-5 Worksheet | Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| According to Larry O’Hanlon of *Discovery News*, mountains are constantly growing over time. Larry O’Hanlon warns climbers, “Mountain climbers, take notice: You may need to take a few more steps to make it to the top.”[[1]](#footnote-1) This growth is caused by tectonic plates. Tectonic plates are constantly shifting and as they shift, they push the mountains higher and higher. Your science teacher decided to measure the growth of Mount Everest. In 1990, Mount Everest was 29,007 feet tall. Every year, your science teacher would calculate the total growth of the mountain since 1990. You science teacher came up with the following table: | |
| |  |  | | --- | --- | | **Number of Years After 1990** | **Total Number of Inches Grown Since 1990** | | 1 | 1.3 | | 2 | 2.4 | | 3 | 3.2 | | 4 | 4.6 | | 5 | 5.7 | | 6 | 6.5 | | 7 | 7.8 | | 8 | 8.9 | | 9 | 10 | | 10 | 11 | | 11 | 12.3 | | 12 | 13.4 | | 13 | 14.1 | | 14 | 15.2 | | 15 | 17 | | 16 | 17.9 | | 17 | 18.6 | | 18 | 19.5 | | 19 | 21.5 | | 20 | 22.9 | | 21 | 23.8 | | 22 | 24.3 | | http://www.schoolingkids.com/analytical-co-ordinate-cartesian-geometry/images/7/graph-first-quadrant.jpgGraph the scatter plot: |
| 1. **Plot these points on a scatter plot on your calculator.** 2. **Calculate a linear regression.**   **a=\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b=\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**   1. **What is the prediction equation?** 2. **How much do we expect the mountain to have grown by 2050 (60 years)? Then how tall would Mount Everest be in 2050?** | |
| 1. **To the nearest year, when will Mount Everest have grown a total of 60 inches?** | |
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1. O’Hanlon, Larry. “Warming Stimulates Mountain Growth Spurt.” *Discovery News*. 27 January 2012. Web 15 September 2012. <http://news.discovery.com/earth/mountains-global-warming-climate-change.html> [↑](#footnote-ref-1)